

OnTheMap for Emergency Management: Technical Overview

Local Employment Dynamics

OnTheMap for Emergency Management is a public data tool that provides an intuitive web-based interface for accessing U.S. population and workforce statistics, in real time, for areas being affected by natural disasters. Users can easily retrieve reports containing detailed U.S. Census block-level workforce, population, and housing characteristics for hurricanes, floods, wildfires, winter storms, and federal disaster declaration areas.

Automated data integration technologies incorporate real time updates for rapidly changing hazard event areas from the National Weather Service's (NWS) National Hurricane Center, Department of Interior (DOI), Department of Agriculture (DOA), and the Federal Emergency Management Agency (FEMA).

OnTheMap for Emergency Management has been designed as an extension of the OnTheMap application- the Census Bureau's award winning web-based workforce analytics tool- from which it integrates recent data about where workers are employed and live.

Technical Highlights:

- **Real Time Data Updates-** Hurricanes, Floods, Wildfires, & Snowfall areas.
- **U.S. Census Block-level Data-** Workforce & Population characteristics reported at the U.S. Census Block level.
- **Workforce Data-** Number and location of jobs; Industry type; Worker age, earnings, race, ethnicity, educational attainment, and sex.
- **Population & Housing Data-** Total population; Pop by age, race, ethnicity, sex; Total housing, Occupied/Vacant housing, Pop by housing.
- **Analyses & Visualizations-** Charting, Worker & Population Distribution Thematic Map Overlays, Worker Flow Analyses.
- **Interoperability-** Export Emergency Event Areas to KML for use in Other GIS Applications.
- **Interactive Features-** User controls for turning On/Off Layers and changing base maps; Search by Date Range or Hazard Type.

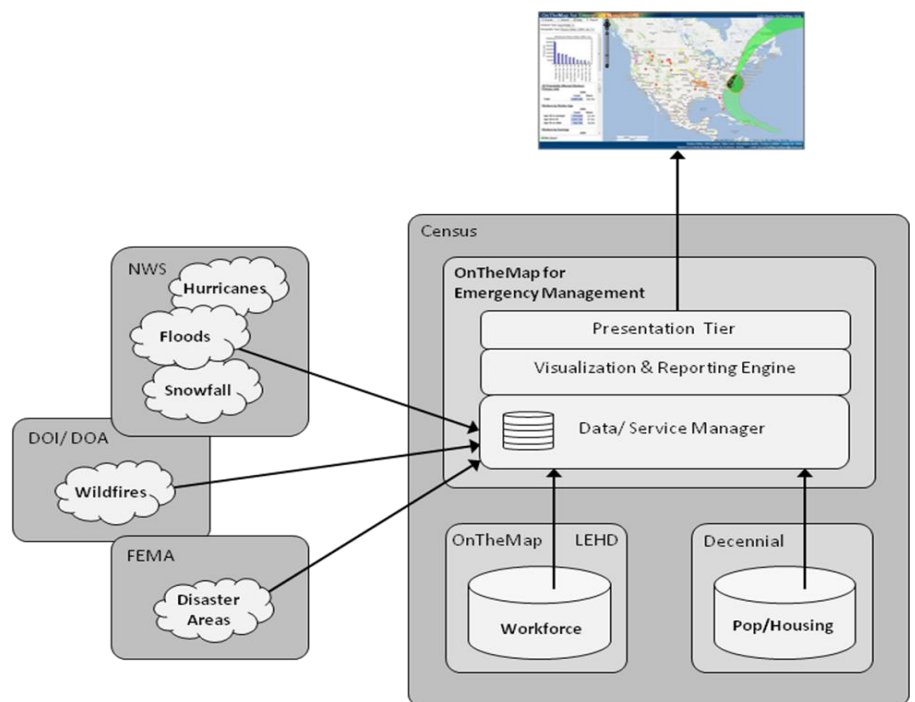


Diagram depicts a conceptual overview of OnTheMap for Emergency Management's application and data architecture. The system utilizes Services Oriented Architectures (SOA) and approaches to achieving data integration and scalability requirements. The application and environment rely on a combination of COTS Open Source software technologies including Linux, PostGres, PostGIS, and MapServer.

OnTheMap for Emergency Management is supported by state Labor Market Information agencies under the Local Employment Dynamics (LED) partnership with the Census Bureau. Data for MA, PR, and VI are currently not available.

OnTheMap for Emergency Management can be accessed directly at <http://onthemap.ces.census.gov/em.html>.

For questions or comments contact: CES.OnTheMap.Feedback@census.gov